Starting point
At the beginning of 2009, ČSOB expressed interest in extending the implementation of performance monitoring and capacity planning solutions to include their electronic banking systems as a way to boost stability and minimise performance and capacity issues. The solution was needed to eliminate risks related to electronic banking system upgrades, and, more importantly, they needed to predict the behaviour of systems during planned and unplanned changes, particularly during spikes in usage during the Christmas and New Year’s holiday seasons.

Solution
Using Trask Solutions, a consultation and technology company, to manage the project, ČSOB began implementing a solution in September 2009. Preparations for the capacity management concept and implementation of best practices in the field were completed, and TeamQuest was selected to be their capacity management software vendor. TeamQuest software was implemented on more than 60 servers which cover ČSOB electronic banking for the Czech Republic and Slovakia. The whole solution was successfully completed in June 2010.

TeamQuest software was integrated into the bank’s current operational monitoring and comprehensively addresses the needs of the whole capacity management cycle, from real-time monitoring to performance management analysis and reporting, to the notifications and alerting system. ČSOB also uses TeamQuest software to experiment with what-if scenarios in support of implementing optimisation measures and changes to the whole electronic banking infrastructure.

One of the most important tasks required of the TeamQuest solution is to provide information for precisely planning IT capacity while ensuring stable operations are maintained.

Thanks to the TeamQuest solution, ČSOB is able to operate its servers in a no-breakdown mode while planning and optimising servers so that they are not oversized yet have sufficient capacity reserve.

“The unique properties of the complete solution give the opportunity to approach capacity management and planning in a totally comprehensive manner and to the highest possible degree.”
ČSOB uses TeamQuest Analyzer to monitor and report efficiency and IT infrastructure load (servers, data storage etc.). They use it to get a very fast look at historical loads, to obtain clear information on relationships, and to analyse performance data from multiple dimensions. They also use Analyzer to really understand the character of the load and all factors and relationships which affect it from various viewing angles. The load measured can be seen in graphs for separate applications, users, cost centres, projects, etc.

ČSOB uses both pre-defined and ad hoc reports that not only serve the IT specialists responsible for electronic banking operations, but also business managers. Reports are created according to precise requests – such as in connection with an unplanned incident.

Other advantages from which ČSOB benefits are the ability to integrate operating metrics, establish threshold values, and notify the operator for quick action when they are exceeded. Examples might be exceeding the set memory capacity, processor use, network operations, increased load on storage systems, etc. On the basis of an alert, notification processes (e.g. by e-mail) or scripts can begin.

A key part of the solution is TeamQuest Model, which allows ČSOB’s IT staff to experiment with various what-if scenarios. It gives answers to questions such as “what happens if we add memory to the server - or take two servers away from the server farm - when the number of users multiplies?” TeamQuest prepares a mathematical model which accurately represents the behaviour of the systems being followed under current conditions and prepares a model which precisely describes the behaviour of the systems under new conditions given by the particular what-if scenario.

Benefits of the TeamQuest solution for ČSOB

- Identifying bottlenecks in the electronic banking infrastructure
- Modelling, creating what-if scenarios, capacity planning
- Predicting potential problems in electronic banking operations
- Understanding capacity dependencies and behaviour in the electronic banking infrastructure
- Identifying the reasons behind any problems which occur
- Preparing reports for management and business
- Optimal planning of regular maintenance in periods of minimal operations, thus making workforce savings, minimising risks and undertaking maintenance without ceasing system operations

Main benefits

The TeamQuest capacity planning solution has given ČSOB full control over the operations of its electronic banking systems. They have the security of stable performance, the capability to understand the behaviour of the whole system, and the capability to intercept any system anomaly, understand its causes, and obtain information on the availability of all system components.

A huge benefit for ČSOB is the ability to model numerous scenarios. One of the realised scenario models was the pre-Christmas shopping season, when performance peaks are expected in the use of electronic banking. ČSOB needed to know that its group of servers was able to cover this huge volume of requests from customers. The aim of the modelling was to determine whether the current infrastructure could withstand the load from the expected number of users. The bank also wanted to know the maximum number of users for which the current electronic banking infrastructure could operate safely and stably. If the model outputs were to show that the infrastructure is not of sufficient size for the expected load, the modeller tool would be used to enable a specific infrastructure configuration to be proposed in line with the expected requirements.

The outputs of this modelling and their high accuracy were subsequently successfully confirmed under actual operations.

“The solution has resulted in infrastructure cost savings for ČSOB, since there is no longer a need to oversize.”

“The aim of the modelling was to determine whether the current infrastructure could withstand the load from the expected number of users.”

Ing. Radek Strnad (electronic banking operations team leader), ČSOB
The solution has resulted in infrastructure cost savings for ČSOB, since there is no longer a need to oversize. It also allows them to plan maintenance during optimal employee loads, cutting personnel costs. Eliminating breakdowns and optimising planned shutdowns were other major benefits with a direct positive impact on bank business.

The implemented solution provides the bank with the opportunity to find the weak points in their infrastructure, propose relevant procedures, optimise the infrastructure and develop it in an effective way in line with dynamic and ever-changing business requirements. The unique properties of the complete solution give the opportunity to approach capacity management and planning in a totally comprehensive manner and to the highest possible degree. For these reasons, ČSOB is interested in extending this solution to infrastructure beyond the electronic banking infrastructure. Within electronic banking, further development is also planned, particularly in extending outputs for business users and automation.

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Note: *Exception Reporter is an extended reporting solution, developed in Europe and part of the TeamQuest software suite.

“…the security of stable performance, the capability to understand the behaviour of the whole system, and the capability to intercept any system anomaly, understand its causes, and obtain information on the availability of all system components.”

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About TeamQuest Corporation

TeamQuest Corporation is the global leader in IT Service Optimization (ITSO), specializing in Capacity Management software. TeamQuest helps IT organizations consistently meet service levels while minimizing costs and mitigating risks. By combining performance data and business metrics, TeamQuest software enables IT organizations to provide accurate, objective information as input to critical business decisions. Companies around the world trust TeamQuest software to help them proactively improve service delivery and support best practices.

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